

ABSTRACT OF THE DISCLOSURE

In an optical transmission system  $S_a$ , a lens 112 converges an optical signal  $OS_{in}$  outputted from a light emission element 111. The optical signal  $OS_{in}$  having passed through the lens 112 enters a multi-mode fiber (MMF) 12. A vertex  $Z_0$  of the lens 112 and an input plane  $F_{in}$  of the MMF 12 are at a distance  $Z_1$ . The distance  $Z_1$  is set to a value which is not equal to the distance from the vertex  $Z_0$  to the focal point  $Z_{fp}$  of the lens 112. As a result, a low-cost optical transmission system can be provided in which the influence of mode dispersion is reduced.